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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/072,038

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Aaron J. Shuman

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02/18/2004

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EXAMINER

LEON, EDWIN A

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,038

Applicant(s)

SHUMAN ET AL.

Examiner

Edwin A. León

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 5 and 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed November 14, 2003 in which Claims 1, and 5-7 have been amended and new Claims 17-19 have been added, has been place of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-4 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (U.S. Patent No. 6,447,170). With regard to Claim 1, Takahashi et al. discloses an electrical connector assembly (Fig. 1) comprising: a plug (10) having a housing (10) with front (14) and rear ends, the front end (14) including a mating interface (14), the housing (10) having a top wall (Fig. 1), a bottom wall (Fig. 1) and side

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walls (Fig. 1); a receptacle (30) having an opening configured to receive the mating interface (14) of the plug (10); a deflectable latch (23) including a beam (23) disposed along one of the sidewalls (Fig. 1), the beam (23) having a front end (26) secured with the front end (14) of the plug housing (10) and a rear, free-standing end (front of 23) which is biasable towards the plug (10) to permit the plug (10) and receptacle (30) to be mated with one another, the latch (23) further including first and second latching projections (25) that are biasable towards the plug (10) and that extend from opposite sides of the beam (23); and first and second latch mating elements (38) formed within the receptacle opening (Fig. 1), the first and second latch mating elements (38) being positioned to securely engage the first and second latching projections (25) when the plug (10) and receptacle (30) housings are fully mated with one another. See Figs. 1-3.

With regard to Claim 2, Takahashi et al. discloses the plug (10) including a cut out portion (below 23) underlying the rear end of the latch beam (23) for permitting increased inward deflection of the latch beam (23) relative to the plug (10). See Figs. 1-3.

With regard to Claim 3, Takahashi et al. discloses the rear end (Fig. 1) of the latch beam (23) including a beveled inner face (Fig. 2) for permitting increased inward deflection of the latch beam (23) relative to the plug (10). See Figs. 1-3.

With regard to Claim 4, Takahashi et al. discloses the first and second latching projections (25) being longitudinally aligned with one another along the length of the latch beam (23). See Figs. 1-3.

With regard to Claim 17, Takahashi et al. discloses a width of the top wall (Fig. 1) being greater than a height of the sidewalls (Fig. 1). See Figs. 1-3.

With regard to Claim 18, Takahashi et al. discloses an overall height of the latch (23) being substantially the same as a height of the sidewalls (Fig. 1). See Figs. 1-3.

With regard to Claim 19, Takahashi et al. discloses a distance between outer edges (Fig. 2) of the first and second latching projections (25) being substantially the same as a height of the sidewalls (Fig. 1). See Figs. 1-3.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (U.S. Patent No. 6,447,170) in view of Sawada (U.S. Patent No. 5,692,923). Takahashi et al. discloses the claimed invention as shown above, except for a plug keying feature formed along the side wall of the plug housing opposite the latch; and a receptacle keying feature formed within the receptacle opening for mating with the plug keying feature.

Sawada discloses a similar connector (Fig. 1) having a plug keying feature (13) formed along a side wall of a plug housing (1) opposite a latch (14, 15); and a

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receptacle keying feature (21) formed within a receptacle opening (17) for mating with the plug keying feature (13). See Fig. 1.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the connector of Takahashi et al. by including a plug keying feature formed along the side wall of the plug housing opposite the latch; and a receptacle keying feature formed within the receptacle opening for mating with the plug keying feature as taught in Sawada in order to guide the plug when coupling with the receptacle. (Sawada, Column 3, Lines 15-21).

Allowable Subject Matter

6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims for the reasons stated in the Office Action of August 14, 2003.

7. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The references fail to teach, disclose, or suggest, either alone or in combination, the plug further comprising a terminal position assurance device (TPA) configured to mate with the plug housing, the TPA having a front wall and top and bottom opposed latching members extending from the front wall and being configured to engage with the

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mating interface for securing the TPA to the mating interface, one of the top and bottom latching members defining a second plug keying feature configured to mate with a second receptacle keying feature formed in the receptacle opening and in combination with the rest of the limitations of the base and intermediate claims.

Response to Arguments

8. Applicant's arguments with respect to claims 1-9 and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edwin A. Leon
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EAL
January 30, 2004


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